N THE UNITED STATES PATENT AND TRADEMARK OFFICE

pplicant:

Michael B. Raynham

Examiner: Anne L. Damiano

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June 25, 2004

Title:

WIRELESS SERVER DIAGNOSTIC SYSTEM AND METHOD

SUBSTITUTE CLAIM SET

Mail Stop Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir/Madam:

A substitute claim set for the originally filed claims, as requested by the Examiner, is provided below.

Applicant: Michael B. Raynham

Serial No.: 09/848,574 Filed: May 3, 2001 Docket No.: 10004326-1

Title: WIRELESS SERVER DIAGNOSTIC SYSTEM AND METHOD

1. A wireless diagnostic system for diagnosing a problem with at least one server comprising:

a portable diagnostic tool including a wireless transmitter and a wireless receiver, the portable diagnostic tool configured to transmit requests with the tool's wireless transmitter; and

a wireless communication subsystem coupled to a first server, the wireless communication subsystem including a wireless transmitter and a wireless receiver, the wireless communication subsystem configured to receive a transmitted request from the portable diagnostic tool with the subsystem's wireless receiver, the wireless communication subsystem configured to transmit service information with the subsystem's wireless transmitter in response to a received request, the portable diagnostic tool configured to receive the service information with the tool's wireless receiver.

2. The wireless diagnostic system of claim 1, and further comprising:

a support server including a wireless transmitter and a wireless receiver, the support server configured to receive a transmitted request from the portable diagnostic tool with the support server's wireless receiver, the support server configured to transmit service support information with the support server's wireless transmitter, the service support information including diagnostic information about the first server, the portable diagnostic tool configured to receive the service support information with the tool's wireless receiver.

- 3. The wireless diagnostic system of claim 1, wherein the portable diagnostic tool and the wireless communication subsystem are configured to wirelessly communicate with short-range radio frequency communications.
- 4. The wireless diagnostic system of claim 3, wherein the short-range radio frequency communications are based on a Bluetooth communications protocol.

Applicant: Michael B. Raynham

Serial No.: 09/848,574 Filed: May 3, 2001 Docket No.: 10004326-1

Title: WIRELESS SERVER DIAGNOSTIC SYSTEM AND METHOD

5. The wireless diagnostic system of claim 2, wherein the portable diagnostic tool and the support server are configured to wirelessly communicate with long-range radio frequency communications.

- 6. The wireless diagnostic system of claim 5, wherein the long-range radio frequency communications are based on a cellular telephone communications protocol.
- 7. The wireless diagnostic system of claim 1, wherein the portable diagnostic tool and the wireless communication subsystem are configured to communicate with infrared (IR) communications.
- 8. The wireless diagnostic system of claim 1, wherein the portable diagnostic tool and the wireless communication subsystem are configured to wirelessly communicate with short-range radio frequency communications and with infrared (IR) communications.
- 9. The wireless diagnostic system of claim 1, wherein the wireless communication subsystem includes a controller for monitoring activities of the first server, the controller configured to generate the service information based at least in part on the monitored activities of the first server.
- 10. The wireless diagnostic system of claim 9, wherein the controller is configured to be powered by a standby power supply separate from a power supply that powers a processor of the first server.
- 11. The wireless diagnostic system of claim 9, wherein the controller is a main server management controller.
- 12. The wireless diagnostic system of claim 1, wherein the portable diagnostic tool includes a display screen, and wherein the portable diagnostic tool is configured

Applicant: Michael B. Raynham

Serial No.: 09/848,574 Filed: May 3, 2001 Docket No.: 10004326-1

Title: WIRELESS SERVER DIAGNOSTIC SYSTEM AND METHOD

to display diagnostic information on the display screen based at least in part on the service information received from the first server.

- 13. The wireless diagnostic system of claim 12, wherein the displayed diagnostic information includes at least one image of a portion of the first server.
- 14. The wireless diagnostic system of claim 12, wherein the service information includes at least one error code, and wherein the portable diagnostic tool is configured to display error information on the display screen based at least in part on the at least one error code.
- 15. The wireless diagnostic system of claim 12, wherein the portable diagnostic tool is configured to display repair suggestion information on the display screen based at least in part on the service information received from the first server.
- 16. The wireless diagnostic system of claim 15, wherein the displayed repair suggestion information includes at least one image of a portion of the first server.
- 17. The wireless diagnostic system of claim 1, wherein the portable diagnostic tool is configured to play voice files, the voice files including repair description information.
- 18. The wireless diagnostic system of claim 1, wherein the portable diagnostic tool is configured to transmit a request for an identification response with the tool's wireless transmitter, the wireless communication subsystem configured to receive the transmitted request for an identification response from the portable diagnostic tool with the subsystem's wireless receiver, the first server configured to generate an identification response in response to receiving the request for an identification response.

Applicant: Michael B. Raynham

Serial No.: 09/848,574 Filed: May 3, 2001 Docket No.: 10004326-1

Title: WIRELESS SERVER DIAGNOSTIC SYSTEM AND METHOD

19. The wireless diagnostic system of claim 18, wherein the identification response is an audible signal.

- 20. The wireless diagnostic system of claim 18, wherein the identification response is a visual indication.
- 21. The wireless diagnostic system of claim 1, wherein the portable diagnostic tool is configured to be attached to the first server.
- 22. The wireless diagnostic system of claim 1, and further comprising:
 a second wireless communication subsystem coupled to a second server, the
 second wireless communication subsystem including a wireless transmitter and a
 wireless receiver, the second wireless communication subsystem configured to
 receive a transmitted request from the portable diagnostic tool with the second
 subsystem's wireless receiver, the second wireless communication subsystem
 configured to transmit service information with the second subsystem's wireless
 transmitter in response to a received request, the portable diagnostic tool configured
 to receive the service information with the tool's wireless receiver.
- 23. A method of identifying a problem with at least one server comprising: wirelessly transmitting a request with a portable diagnostic tool; providing a wireless communication subsystem coupled to a first server; receiving the transmitted request from the portable diagnostic tool with the wireless communication subsystem;

wirelessly transmitting service information with the wireless communication subsystem in response to a received request; and

receiving the service information with the portable diagnostic tool.

24. The method of claim 23, and further comprising: providing a support server including a wireless transmitter and a wireless receiver;

Applicant: Michael B. Raynham

Serial No.: 09/848,574 Filed: May 3, 2001 Docket No.: 10004326-1

Title: WIRELESS SERVER DIAGNOSTIC SYSTEM AND METHOD

receiving a transmitted request from the portable diagnostic tool with the support server's wireless receiver;

wirelessly transmitting service support information with the support server's wireless transmitter, the service support information including diagnostic information about the first server,

receiving the service support information with the portable diagnostic tool.

25. The method of claim 23, and further comprising:

displaying diagnostic information with the portable diagnostic tool based at least in part on the service information received from the first server.

26. The method of claim 23, wherein the service information includes at least one error code, the method further comprising:

displaying error information with the portable diagnostic tool based at least in part on the at least one error code.

27. The method of claim 23, and further comprising:

displaying repair suggestion information with the portable diagnostic tool based at least in part on the service information received from the first server.

28. The method of claim 23, and further comprising:

providing a second wireless communication subsystem coupled to a second server;

receiving a transmitted request from the portable diagnostic tool with the second wireless communication subsystem;

wirelessly transmitting service information with the second wireless communication subsystem in response to a received request; and

receiving the service information with the portable diagnostic tool.

29. A portable server diagnostic tool comprising:

Applicant: Michael B. Raynham

Serial No.: 09/848,574 Filed: May 3, 2001 Docket No.: 10004326-1

Title: WIRELESS SERVER DIAGNOSTIC SYSTEM AND METHOD

a wireless transmitter for wirelessly transmitting a request to a first plurality of servers;

a wireless receiver for wirelessly receiving service information from at least one server in the first plurality of servers; and

a display screen for displaying diagnostic information based at least in part on the received service information.

- 30. The portable server diagnostic tool of claim 29, wherein the tool is configured to wirelessly communicate with a support server to obtain service support information from the support server.
- 31. The portable server diagnostic tool of claim 29, wherein the tool is configured to wirelessly communicate with a support server to transmit repair information to the support server.
- 32. The portable server diagnostic tool of claim 29, wherein the displayed diagnostic information includes error information representing at least one error experienced by the at least one server.
- 33. The portable server diagnostic tool of claim 29, wherein the tool is configured to display repair suggestion information on the display screen based at least in part on the received service information.
- 34. The portable server diagnostic tool of claim 29, wherein the tool is configured to be attached to a server in the first plurality of servers.
- 35. A server comprising:
 - a processor;
 - a memory coupled to the processor;
- a controller coupled to the processor, the controller configured to monitor activities of the processor and store server status information; and

Applicant: Michael B. Raynham

Serial No.: 09/848,574 Filed: May 3, 2001 Docket No.: 10004326-1

Title: WIRELESS SERVER DIAGNOSTIC SYSTEM AND METHOD

a wireless communications subsystem coupled to the controller, the wireless communications subsystem configured to wirelessly transmit at least a subset of the server status information.

- 36. The server of claim 35, wherein the controller is configured to be powered by a standby power supply separate from a power supply that powers the processor.
- 37. The server of claim 35, wherein the controller is a main server management controller.